IN THE CLAIMS:

Please amend claim 20 as follows:

1. (Previously Presented) A multi-layer film having a layer structure that a polyvalent metal compound-containing layer (B) adjoins one side or both sides of a polymer layer (A), the polymer layer (A) containing a carboxyl group-containing polymer as one and only one polymer element making up the polymer layer (A), and the carboxyl group-containing polymer containing a polyvalent metal salt, wherein

(1) the multi-layer film has either a layer structure (i) of the polymer layer (A)/the polyvalent metal compound-containing layer (B), and the polymer layer (A) has a concentration gradient structure that the concentration of the polyvalent metal salt of the carboxyl group-containing polymer in the polymer layer (A) is continuously reduced up to a surface opposite to a surface adjoining the polyvalent metal compound-containing layer (B) of the polymer layer (A) in a thickness-wise direction from the adjoining surface, or

a layer structure (ii) of the polyvalent metal compound-containing layer (B)/the polymer layer (A)/the polyvalent metal compound-containing layer (B), and the polymer layer (A) has a concentration gradient structure that the concentration of the polyvalent metal salt of the carboxyl group-containing polymer in the polymer layer (A) is continuously reduced up to a central portion of the polymer layer (A) in a thickness-wise direction from two surfaces each adjoining to one of the polyvalent metal compound-containing layers (B), and

(2) a peak ratio A_{1560}/A_{1700} of the height A_{1560} of an absorption peak at a wave number of 1560 cm^{-1} to the height A_{1700} of an absorption peak at a wave number of 1700 cm-1 as determined on the basis of an infrared absorption spectrum of the polymer layer (A) is at least 0.25.

2-4. (Cancelled)

5. (Original) The multi-layer film according to claim 1, wherein the concentration gradient structure of the polymer layer (A) has a low concentration region of the polyvalent metal salt of the carboxyl group-containing polymer, whose element mole number ratio [metal element (n valence)/C element] calculated out on the basis of the

result of elemental composition analysis in the thickness-wise direction by energy dispersive X-ray spectroscopy falls within a range of 0 to 0.06/n, in a proportion of 5 to 80% in terms of a thickness percentage of the polymer layer (A).

6. (Original) The multi-layer film according to claim 1, wherein the concentration gradient structure of the polymer layer (A) has a high concentration region of the polyvalent metal salt of the carboxyl group-containing polymer, whose element mole number ratio [metal element (n valence)/C element] calculated out on the basis of the result of elemental composition analysis in the thickness-wise direction by energy dispersive X-ray spectroscopy falls within a range of from higher than 0.06/n to not higher than 0.33/n, in a proportion of 20 to 95% in terms of a thickness percentage of the polymer layer (A) adjoining the polyvalent metal compound-containing layer (B).

7. (Previously Presented) The multi-layer film according to claim 1, wherein the multi-layer film has the layer structure (i), and

the polymer layer (A) has a high concentration region of the polyvalent metal salt of the carboxyl group-containing polymer, whose element mole number ratio [metal element (n valence)/C element] calculated out on the basis of the result of elemental composition analysis in the thickness-wise direction by energy dispersive X-ray spectroscopy falls within a range of from higher than 0.06/n to not higher than 0.33/n, in a proportion of 20 to 95% in terms of a thickness percentage of the polymer layer (A) adjoining the polyvalent metal compound-containing layer (B), and has, on the side opposite to the surface adjoining the polyvalent metal compound-containing layer (B), a low concentration region of the polyvalent metal salt of the carboxyl group-containing polymer, whose element mole number ratio [metal element (n valence)/C element] falls within a range of 0 to 0.06/n, in a proportion of 5 to 80% in terms of a thickness percentage of the polymer layer (A).

8. (Cancelled)

9. (Previously Presented) The multi-layer film according to claim 1, wherein the multi-layer film has the layer structure (ii), and

the polymer layer (A) has a high concentration region of the polyvalent metal salt of the carboxyl group-containing polymer, whose element mole number ratio

[metal element (n valence)/C element] calculated out on the basis of the result of elemental composition analysis in the thickness-wise direction by energy dispersive X-ray spectroscopy falls within a range of from higher than 0.06/n to not higher than 0.33/n, in a proportion of 20 to 95% in terms of a thickness percentage of the polymer layer (A) adjoining each of the polyvalent metal compound-containing layers (B), and has, at a central portion thereof, a low concentration region of the polyvalent metal salt of the carboxyl group-containing polymer, whose element mole number ratio [metal element (n valence)/C element] falls within a range of 0 to 0.06/n, in a proportion of 5 to 80% in terms of a thickness percentage of the polymer layer (A).

10. (Original) The multi-layer film according to claim 1, wherein a chemical equivalent of the polyvalent metal compound to the carboxyl group, which is calculated out on the basis of the total (At) of the carboxyl group contained in the whole carboxyl group-containing polymer layer (A) and the total (Bt) of the polyvalent metal compound contained in the whole carboxyl group-containing polymer layer (A) and the whole polyvalent metal compound-containing layer (B), is at least 1.0.

11. (Original) The multi-layer film according to claim 1, wherein an oxygen transmission rate as determined by using the multi-layer film formed into a cylindrical form as a sample to conduct a flex test of 150 Gelvo flexings by means of a Gelvo tester under conditions of a temperature of 5°C and a relative humidity of 10% in accordance with the provisions of ASTM F 392, aging the sample for 20 hours under an environment of a temperature of 30°C and a relative humidity of 80%, and then measuring an oxygen transmission rate of the sample after the aging under conditions of a temperature of 30°C and a relative humidity of 0% in accordance with ASTM D 3985-81 is retained within ±50% of the oxygen transmission rate of the sample before the flex test.

12. (Original) The multi-layer film according to claim 1, wherein the carboxyl group-containing polymer has an oxygen transmission coefficient of at most 1,000 cm^3 μm/ (m^2·day· MPa) as determined in the form of a film formed by itself under low-humidity conditions of a temperature of 30°C and a relative humidity of 0%.

13. (Original) The multi-layer film according to claim 1, wherein the carboxyl group-containing polymer is a homopolymer of a carboxyl group-containing unsaturated monomer, a copolymer of carboxyl group-containing unsaturated monomers, a copolymer of a carboxyl group-containing unsaturated monomer and any other polymerizable monomer, a carboxyl group-containing polysaccharide or a mixture of at least two monomers thereof.

14. (Original) The multi-layer film according to claim 1, wherein the carboxyl group-containing unsaturated monomer is at least one α, β-monoethylenically unsaturated carboxylic acid selected from the group consisting of acrylic acid, methacrylic acid, crotonic acid, itaconic acid, maleic acid and fumaric acid.

15. (Original) The multi-layer film according to claim 1, wherein the polyvalent metal compound is an oxide, carbonate, organic acid salt or alkoxide of beryllium, magnesium, calcium, copper, cobalt, nickel, zinc, aluminum or zirconium.

16. (Original) The multi-layer film according to claim 1, wherein the polyvalent metal compound is a divalent metal compound.

17. (Original) The multi-layer film according to claim 1, wherein the thickness of the polymer layer (A) is 0.001 μm to 1 mm, and the thickness of the polyvalent metal compound-containing layer (B) is 0.001 μm to 1 mm.

18. (Original) The multi-layer film according to claim 1, which is obtained by a process comprising forming at least one carboxyl group-containing polymer layer and at least one polyvalent metal compound-containing layer adjacently to each other on the base by a coating method and then aging the polyvalent metal compound-containing layer under an atmosphere of a relative humidity of at least 20% and a temperature of 5°C to 200°C to cause the polyvalent metal compound to migrate from the polyvalent metal compound-containing layer into the carboxyl group-containing polymer layer, thereby forming a polyvalent metal salt with the carboxyl group in the carboxyl group-containing polymer layer.

19. (Original) The multi-layer film according to claim 1, which has an oxygen transmission rate of at most 1,000 cm^3(STP)/ (m^2·day·MPa) as determined under high-humidity conditions of a temperature of 30°C and a relative humidity of 80%.

20. (Currently Amended) A multi-layer film obtained by additionally arranging at least one another resin layer on one side or both sides of the multi-layer film according to claim 1 ~~any one of claims 1, 5-7 and 9-19~~.